

REMARKS

The Office Action dated March 9, 2004 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-20 are pending in the present application. Claims 1, 5-6, 9-10, and 13-14 are independent claims. No new matter has been added. Claims 5, 9, 13-14, 17-18 and 20 having previously been allowed, claims 1-4, 6-8, 10-12, 15-16, and 19 are respectfully submitted for consideration.

Rejection of Claims 1-3, 6-8, 10-12, 16, and 19 Under 35 U.S.C. § 102(a):

Claims 1-3, 6-8, 10-12, 16, and 19 were rejected under 35 U.S.C. § 102(a) as being anticipated by Applicants' Admitted Prior Art (AAPA) included in page 2, line 15- page 5, line 18 of the present specification and in Figures 1-3 of the present application. This rejection is respectfully traversed.

Claim 1, upon which claims 2-4 and 15-16 depend, recites a method of image compression. The method includes providing digital image data in a computer-readable format, the digital image data including data on values and coordinates for a plurality of pixels. The method also includes selecting a region of interest of an image represented by the digital image data and sorting and prioritizing the digital image data according to at least two priority categories, with digital image data corresponding to the region of interest having a higher priority than digital image data corresponding to areas outside of the region of interest. The method further includes transmitting the sorted and prioritized digital image data to a remote location, with the digital information data corresponding to

the region of interest being transmitted with higher priority than the areas outside of the region interest.

Claim 6, upon which claims 7-8 and 19 depend, recites a system for compressing a digital image. The system includes input means for inputting digital image data in computer-readable format with the digital image data including data on values and coordinates for a plurality of pixels for an image. The system also includes display means connected to the input means for displaying the digital image data and selecting means connected to the display means for selecting a region of interest of an image represented by the digital image data. The system further includes sorting and prioritizing means connected to the selecting means for sorting and prioritizing the digital image data according to at least two priority categories, with digital image data corresponding to the region of interest having a higher priority than digital image data corresponding to areas outside of the region of interest. In addition, the system includes transmitting means for transmitting the sorted and prioritized data to a remote location, with the transmitting means transmitting the digital image data corresponding to the region of interest with higher priority than the areas outside of the region of interest.

Claim 10, upon which claims 11-12 depend, recites a computer program embodied on a computer readable medium, the computer program controlling a general purpose computer to perform a number of steps. One of these steps includes displaying digital image data on a display, the digital image data including data on values and coordinates for a plurality of pixels. Another step includes permitting a user to select a region of

interest on an image represented on the display by the digital image data. Yet another step includes sorting and prioritizing the digital image data according to at least two priority categories, with digital image data corresponding to the selected region of interest having a higher priority than digital image data corresponding to areas outside of the region of interest. Also, another step includes transmitting the sorted and prioritized digital image data to a remote location, with the region of interest being transmitted with higher priority than the areas outside of the region of interest.

As discussed at least on page 6 of the present specification, methods, systems, and computer programs according to the claimed invention enable a user at a transmitting end or at a receiving end to select an appropriate region of interest which is reconstructed, possibly losslessly, and with a higher fidelity than the rest of the image, regardless of the importance of the region of interest in the Mean Squared Error (MSE) sense. It is respectfully submitted that the AAPA fails to disclose or suggest the elements of any of the presently pending claims. Therefore, it is further submitted that the AAPA fails to provide at least the above-discussed advantages of the claimed invention.

The AAPA discloses that an “image which is initially stored as a two dimensional array representing a plurality of individual pixels prioritizes bits according to a transform coefficient for progressive image transmission” (page 2, lines 22-24 of the present specification). The AAPA also discloses that the “most important information is selected by determining significant or insignificant elements with respect to a given threshold utilizing subset partitioning” (page 2, lines 24-26).

However, the AAPA fails to disclose or suggest at least “selecting a region of interest of an image,” as recited in claim 1 of the present application. The AAPA also fails to disclose or suggest at least the “selecting means connected to said display means for selecting a region of interest of an image” recited in claim 6 of the present application. Further, the AAPA also fails to disclose or suggest at least “permitting a user to select a region of interest on an image,” as recited in claim 10 of the present application.

On page 7 of the Office Action, it is alleged that “selecting a region of interest” is disclosed in the AAPA because it is disclosed on page 2 of the AAPA that “[t]he most important information is selected”. It also appears to be alleged in the Office Action that this portion of the AAPA anticipates the “selecting means” recited in claim 6 of the present application and the “permitting” step recited in claim 10 of the present application. Applicants respectfully disagree.

Applicants point out that the “most important information” recited in the AAPA is neither disclosed nor suggested as being included in any particular “region of interest of an image”, as recited in claims 1, 6, and 10 of the present application. Rather, the “most important information” disclosed in the AAPA may be found anywhere in an image. For example, the “most important information” disclosed in the AAPA may be found to be associate with every pixel in an image, in every second pixel in an image, etc. At least for this reason, Applicants respectfully submit that the AAPA fails to disclose or suggest the subject matter recited in claims 1, 6, and 10 of the present application.

Also, Applicants respectfully submit that the AAPA fails to disclose or suggest at least “sorting and prioritizing said digital image data according to at least two priority categories,” as recited in claims 1 and 10 of the present application and the “sorting and prioritizing means . . . for sorting and prioritizing said digital image data according to at least two priority categories,” as recited in claim 6 of the present application. Rather, on line 10 of page 2 of the present specification, the AAPA discloses set partitioning in hierarchical trees (SPIHT).

Applicants respectfully submit that one of skill in the art understands that SPIHT uses a zero tree coding of dynamically generating lists for compressing and decompressing images. Applicants further submit that one of skill in the art also understands that, in zero tree coding, the coding order is determined by the magnitude of the wavelet transform coefficients of an image. Therefore, Applicants point out that the AAPA, at best, discloses only a single priority category. In direct contrast, the methods, systems, and computer programs recited in claims 1, 6, and 10, respectively, of the present application each recite “at least two priority categories”. Thus, Applicants respectfully submit claims 1, 6, and 10 of the present application are also patentable over the AAPA at least in view of this additional distinctions.

At least in view of the above, Applicants respectfully submit that the AAPA fails to disclose or suggest the subject matter recited in claims 1, 6, and 10 of the present application. Hence, Applicants further submit that claims 1, 6, and 10 are patentable over the AAPA at least for the reasons discussed above.

Claims 2-3, 7-8, 11-12, 16, and 19 all depend upon either claim 1, 6, or 10 and thereby inherit all of the patentable distinctions thereof. Hence, Applicants respectfully submit that claims 2-3, 7-8, 11-12, 16, and 19 are patentable over the AAPA at least for the reasons discussed above in connection with claims 1, 6, and 10.

At least in view of the above remarks, reconsideration and withdrawal of the rejection of claims 1-3, 6-8, 10-12, 16 and 19 under 35 U.S.C. § 102(a) as being anticipated by AAPA is respectfully requested.

Objection to Claims 4 and 15 as Being Dependent Upon a Rejected Base Claim:

Claims 4 and 15 were objected to as being dependent upon a rejected base claim. Applicants respectfully submit that claim 1, upon which claims 4 and 15 depend, has been shown to recite patentable subject matter. Therefore, reconsideration and withdrawal of the objection to claims 4 and 15 as being dependent upon a rejected base claim is respectfully requested.

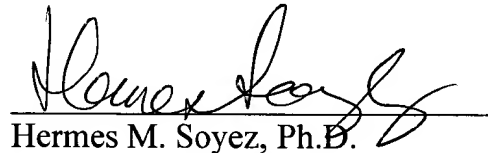
Allowed Claims:

Applicants thank the Examiner for allowing claims 5, 9, 13-14, 17-18 and 20. Applicants also respectfully submit that all of the comments included in the Office Action have been addressed and that all of the objections and rejections included therein have been overcome. Therefore, Applicants respectfully further submit that claims 1-20 of the present application contain allowable subject matter, respectfully request that all claims pending in the present application be allowed, and further request that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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